CLAIMS

1/ A magnetic coating suitable for being spread substantially regularly over a surface (11), said coating comprising a binder (12) having embedded therein conductive particles (13) directed by prior magnetization along an inductive electromagnetic field.

2/ A magnetic coating according to claim 1, in which the conductive particles (13) comprise ferromagnetic particles such as iron oxide particles.

3/ A magnetic coating according to claim 1, in which the conductive particles comprise at least some particles that are not ferromagnetic particles, such as particles of copper in order to provide electromagnetic shielding.

4/ A magnetic coating according to any preceding claim, in which the conductive particles (13) are rod shaped.

5/ A magnetic coating according to any preceding claim, in which said binder is selected from a hot-melt adhesive resin, a cold glue, and a paint.

6/ A magnetic coating according to the preceding claim, in which the adhesive resin is preferably not electrically conductive.

7/ A method of applying a coating on a backing medium (11), the method comprising a step of applying a main binder (12) on the medium while the medium is being guided by a conveyor (20), a step of controlled dispensing and uniform spreading of a fill of conductive particles (13) in the binder, coupled with a step of directing the particles by magnetization, followed by a step of demagnetization, a step of covering the particles in a deposit of an additional binder, and a step of drying the assembly.

8/ A method of applying a coating on a backing medium according to claim 7, characterized in that when the fill of conductive particles comprises at least some ferromagnetic particles, the magnetization step is followed by a step of demagnetization, and the drying step is followed by a step of remagnetizing the particles.

9/ A method of applying a coating on a backing medium according to claim 7 or claim 8, in which the controlled dispensing of the fill is performed by programming the powder delivery rate as a function of the density selected for particles, and then by uniform spreading over the pre-glued medium.

10/ A method of applying a coating on a backing medium according to claim 9, in which the magnetization step occurs after the particles have indeed been spread within the main binder following the step of dispensing and spreading the particles, but prior to the binder actually setting by solidifying.

11/ A method of applying a coating on a backing medium according to claim 9, in which the steps of dispensing, of spreading, and of magnetizing the particles are combined in such a manner that the particles are directed by magnetization prior to being actually spread within the binder.

12/ A method of applying a coating on a backing medium according to any one of claims 7 to 11, in which an adhesive resin is sprayed as an additional binder covering the particles and to enable a medium (14) to be laminated onto the top surface to serve as a front medium.

13/ A method of applying a coating on a backing medium according to any one of claims 7 to 11, in which the

covering step consists in spraying a varnish as the additional binder.

14/ Coating apparatus for implementing the method of the invention, the apparatus comprising means (10, 15) for feeding the medium (11, 21) onto a conveyor (20), means for applying a principal binder (12) via presser rollers (40) and via at least one nozzle (30), said means being coupled to heater means, a tank (50) of particles (13) coupled to a duster (51) for dispensing the fill of particles, means for spreading the fill of particles within the main binder, electromagnetic means (60) for producing an anisotropic magnetic field for magnetizing the particles, a spray (80) for depositing an additional binder, and dryer means (100).

15/ Coating apparatus according to claim 14, in which the duster (51) is programmed to deliver the quantity of powder that corresponds to the density selected for the fill, the spreader means are constituted by a system of vibrating screens, and the electromagnetic magnetization means are formed by an electromagnet (60).

16/ Coating apparatus according to claim 15, in which the spreader means are constituted by at least one measuring-out unit replacing the system of vibrating screens, the unit and the screens forming particular patterns by masking.

17/ Coating apparatus according to any one of claims 14 to 16, in which a demagnetizer (70) is placed immediately downstream from the electromagnetic magnetizing means (60) and a final magnetizer (110) is placed downstream from the dryer means (100), when the fill comprises at least some ferromagnetic particles.

18/ Coating apparatus according to any one of claims 14 to 17, in which, when feeding is performed continuously, the medium is fed from a winding-off roll (10), the front medium

(14) is fed from a winding-off roll (90) coupled to presser rollers (91) pressing on the conveyor (20), and a final winding roll (120) provides a reel of the resulting coated medium.

19/ Coating apparatus according to any one of claims 14 to 17, in which, when feeding is performed discontinuously, the backing medium (24) is fed sheet by sheet onto the conveyor from a feeder bin (15), and the front medium is fed likewise from a sheet feeder bin (16), the feeder bins and the means for spreading the fill of particles being controlled by a dispenser system that is automatic and adjusted to the rate of throughput.

20/ Coating apparatus according to claim 19, in which the means (30, 40) for applying the binder and the means (80) for applying the additional binder are governed by an optical sequential controller having photoelectric cells, and connected to the automatic dispenser system.

21/ Coating apparatus according to any one of claims 14 to 20, in which means are provided for cutting up the resulting coated medium in order to form elements that are to be held in place on metal surfaces by magnetic forces acting between the element and the metal surface.